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EXAMINER

LEE, JAE YOUNG

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,912	<b>Applicant(s)</b> BRASCHI ET AL.	
	<b>Examiner</b> JAE Y. LEE	<b>Art Unit</b> 2466	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 22-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status***

1. Claims 1-21 have been cancelled.
2. Rejections of claim 40 under 35 USC § 101 and 112 have been withdrawn according to the amended claim limitation.

### ***Response to Arguments***

3. Applicant's arguments filed on 21 August 2009 have been fully considered but they are not persuasive.
4. On pages 11-12 of the applicant's response, applicant argues that Koperda in view of Rabenko do not teach or suggest "*the media independent interface bus ... a media independent interface bus connected to the media independent interface ... the expansion bus comprising the media independent bus*"
5. The examiner respectfully disagrees with applicant's arguments, because Koperda discloses "modular system (Fig. 1-3), Ethernet module allowing distribution of data to local device in the residence (paragraph 0042 lines 6-7), power supply module combined with Ethernet module and ADSL interface (paragraph 0043 lines 1-9), communications bus 2 used to carry data to the external network access going to a public network, communication bus 3 carrying residential data (paragraph 0049 lines 1-4)." Rabenko discloses paragraph 0061 lines 1-5: media independent interface (MII). The MII is well-known standard interface (standardized by IEEE 802.3u) and the MII bus is used to connect to different type of PHY devices. Therefore, it would have been

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obvious to the person of ordinary skill in the art at the time of invention was made to use MII bus to connect to the use any of types of PHY modular devices without redesigning or replacing the MAC hardware by Koperda in combination with Rabenko.

6. Applicants also argue on pages 13-14, Koperda in view of Rabenko also fail to teach or suggest “when disable input is set in a disable state, it drives a local network interface [of the base module] into a disabled state ... *disabling a local network interface of the base module ... through the media independent interface of the expansion local network interface device.*”

7. The examiner respectfully disagrees with applicant's arguments, because Koperda discloses “modular system (Fig. 1-3), Ethernet module allowing distribution of data to local device in the residence (paragraph 0042 lines 6-7), power supply module combined with Ethernet module and ADSL interface (paragraph 0043 lines 1-9), communications bus 2 used to carry data to the external network access going to a public network, communication bus 3 carrying residential data (paragraph 0049 lines 1-4), and modules A, B, C, and D turning off respective communication bus 1 pass-thru switches (Fig. 3; paragraph 0052 lines 1-3).” Rabenko discloses paragraph 0061 lines 1-5: media independent interface (MII). The MII is well-known standard interface (standardized by IEEE 802.3u) and the MII bus is used to connect to different type of PHY devices. Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to turn off other modular devices via MII bus without redesigning or replacing the MAC hardware by Koperda in combination with Rabenko.

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8. Applicants also argue on pages 15, Koperda also fail to teach or suggest “*unregulated power supply distribution lines in the modular system.*”

9. The examiner respectfully disagrees with applicant's arguments, because Koperda discloses “modular system (Fig. 1-3), power supply providing the power for the stack of modules (paragraph 0042 lines 1-2), power bus (paragraph 0047 lines 1-3). Ethernet module allowing distribution of data to local device in the residence (paragraph 0042 lines 6-7), power supply module combined with Ethernet module and ADSL interface (paragraph 0043 lines 1-9), communications bus 2 used to carry data to the external network access going to a public network, communication bus 3 carrying residential data (paragraph 0049 lines 1-4), and modules A, B, C, and D turning off respective communication bus 1 pass-thru switches (Fig. 3; paragraph 0052 lines 1-3), plurality of power modules (Fig. 4).” It is well-known that power supply generating lower regulated voltage for internal devices from higher unregulated external power. Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to use power supply to generate regulated power supply from unregulated power supply in order to provide power to other modules. The motivation would have been to prevent shutdown caused by failure of power adaptation.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. **Claims 22-42** are rejected under 35 U.S.C. 103(a) as being unpatentable over Koperda et al. (US 2002/0065935) in view of Rabenko et al. (US 2002/0006137).

**For claim 22**, Koperda discloses a system comprising:

- a modular expandable apparatus comprising at least one base module (Fig. 1, paragraph 0042 lines 1-2: power supply module; table 1, paragraph 0043 lines 1-9: power supply module combined with Ethernet module and ADSL interface);
- a broad-band data communication device for handling communications with an external data communication network through a broad-band data communication channel (table 1: ADSL interface; paragraph 0043 lines 1-9: power supply module combined with Ethernet module and ADSL interface);
- at least one local network port for the connection to a local data communication network (paragraph 0032 lines 10-11: IP phone connected to an Ethernet network; paragraph 0042 lines 6-7: Ethernet module allowing distribution of data

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to local device in the residence; the Ethernet module implicitly have the ports  
paragraph 0043 lines 1-9: power supply module combined with Ethernet  
module);

- a local network interface device for handling communications with the local data communication network and coupled to the local network port through a local network communication bus, the local network interface (paragraph 0032 lines 10-11: IP phone connected to an Ethernet network; paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence; the Ethernet module implicitly have the ports; paragraph 0049 lines 1-4: communications bus 2 used to carry data to the external network access going to a public network, communication bus 3 carrying residential data);
- a data processing unit (paragraph 0066 line 1: system processor) interacting with the broad-band data communication device and interacting with the local network interface device through bus connected to interface thereof, for enabling intercommunication between the local network and the external network (table 1: ADSL interface; paragraph 0037 lines 1-5: signaling go from the ADSL modem to the system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone; paragraph 0043 lines 1-9: power supply module combined with Ethernet module and ADSL interface; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the

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modules and transferring data directly between modules; paragraph 0049 lines 1-4: communications bus 2 used to carry data to the external network access going to a public network, communication bus 3 carrying residential data);

- a signal line coupled to the input of the local network device and when set is a disable state which drives the local network interface device into a disabled state in which the local network interface device does not engage bus and the local network port (paragraph 0037 lines 1-5: signaling go from the ADSL modem to the system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone; paragraph 0052 lines 1-3: modules A, B, C, and D turning off respective communication bus 1 pass-thru switches); and
  - an expansion bus allowing expandability of the apparatus connecting at least one expansion module to the base module, the expansion bus comprising the interface bus, the local network communication bus and the signal line (Fig. 1: modular residential gateway; paragraph 0042 lines 1-2: power supply module; table 1, paragraph 0043 lines 1-9: power supply module combined with Ethernet module and ADSL interface; paragraph 0048 lines 1-6: communication bus transferring data directly between modules; paragraph 0052 lines 1-3: modules A, B, C, and D turning off respective communication bus 1 pass-thru switches)
- Koperda does not explicitly disclose disable signal line and disable input.

However, Koperda discloses modules A, B, C, and D turning off respective communication bus 1 pass-thru switches (paragraph 0052 lines 1-3). Therefore, it would



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have been obvious to the person of ordinary skill in the art at the time of invention was made to implement disable input to turn off the communication bus of corresponding modules in order to control modular gateway efficiently.

Koperda discloses all the subject matter of the claimed invention with the exception for media independent interface. Rabenko discloses media independent interface (paragraph 0061 lines 1-5: MII). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate the media independent interface to the system of Koperda. The motivation would have been to the use any of types of PHY devices without redesigning or replacing the MAC hardware.

**For claim 23,** Koperda discloses

- the local network is an Ethernet network, and the local network interface device comprises an Ethernet physical layer transceiver (paragraph 0032 lines 10-11: IP phone connected to an Ethernet network; paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence; the Ethernet module implicitly have the ports; the Ethernet physical layer transceiver implicitly exists since the Ethernet module communicates with local device)

**For claim 24,** Koperda discloses

- the broad-band data communication device is an xDSL data communication device (paragraph 0037 lines 1-5: signaling go from the ADSL modem to the

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system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone; “x” is a wildcard that can be ADSL or SDSL)

**For claim 25,** Koperda discloses

- the broad-band data communication device is implemented by the data processing unit (paragraph 0037 lines 1-5: signaling go from the ADSL modem to the system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone)

**For claim 26,** Koperda discloses

- the base module (Fig. 1, paragraph 0042 lines 1-2: power supply module; table 1, paragraph 0043 lines 1-9: power supply module combined with Ethernet module and ADSL interface) further comprises a data processing unit bus connected to the data processing unit, the base module being part of the expansion bus (paragraph 0037 lines 1-5: signaling go from the ADSL modem to the system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone; paragraph 0048 lines 1-6: communication bus transferring data directly between modules)

**For claim 27,** Koperda discloses

- the base module (Fig. 1, paragraph 0042 lines 1-2: power supply module; table 1, paragraph 0043 lines 1-9: power supply module combined with Ethernet

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module and ADSL interface) comprises at least one expansion connector connected and allowing access to the expansion bus (paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-6: communication bus transferring data directly between modules)

**For claim 28,** Koperda discloses

- at least one expansion module, the expansion module comprising at least one input expansion connector matching the expansion connector (paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-6: communication bus transferring data directly between modules) of the base module (Fig. 1, paragraph 0042 lines 1-2: power supply module; table 1, paragraph 0043 lines 1-9: power supply module combined with Ethernet module and ADSL interface)

**For claim 29,** Koperda discloses

- the at least one expansion module further comprises an output expansion connector matching the input expansion connector (paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-6: communication bus transferring data directly between modules)

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**For claim 30**, Koperda discloses

- the data processing unit bus, the local network communication bus and the disable line is propagated from the input expansion connector to the output expansion connector of the expansion module (paragraph 0037 lines 1-5: signaling go from the ADSL modem to the system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone ; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0047 lines 1-3: power bus, clock bus, and communication buses; paragraph 0048 lines 1-6: communication bus transferring data directly between modules; paragraph 0052 lines 1-3: modules A, B, C, and D turning off respective communication bus 1 pass-thru switches; paragraph 0066 line 1: system processor)

Koperda discloses all the subject matter of the claimed invention with the exception for media independent interface. Rabenko discloses media independent interface (paragraph 0061 lines 1-5: MII). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate the media independent interface to the system of Koperda. The motivation would have been to the use any of types of PHY devices without redesigning or replacing the MAC hardware.

**For claim 31**, Koperda discloses

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- the data processing unit bus is propagated from the input expansion connector to the output expansion connector of the expansion module (paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules), while the local network communication bus and the disable line are not propagated to the output expansion connector (paragraph 0049 lines 1-4: communications bus 2 used to carry data to the external network access going to a public network, communication bus 3 carrying residential data; paragraph 0052 lines 1-3: modules A, B, C, and D turning off respective communication bus 1 pass-thru switches; paragraph 0066 line 1: system processor; disabling line are implicitly not to propagate to the output connector since the module turning off corresponding communication bus)

Koperda discloses all the subject matter of the claimed invention with the exception for media independent interface. Rabenko discloses media independent interface (paragraph 0061 lines 1-5: MII). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate the media independent interface to the system of Koperda. The motivation would have been to the use any of types of PHY devices without redesigning or replacing the MAC hardware.

**For claim 32,** Koperda discloses

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- the at least one expansion module comprises an expansion module including an Ethernet switch (paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence)

**For claim 33**, Koperda discloses

- the Ethernet switch (paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence) comprises bus, when the input expansion connector of the expansion module is connected to an expansion connector of the base module (Fig. 1, paragraph 0042 lines 1-2: power supply module; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules)

Koperda discloses all the subject matter of the claimed invention with the exception for media independent interface. Rabenko discloses media independent interface (paragraph 0061 lines 1-5: MII). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate the media independent interface to the system of Koperda. The motivation would have been to the use any of types of PHY devices without redesigning or replacing the MAC hardware.

**For claim 34,** Koperda discloses

- the expansion module drives the disable line to a disable state for disabling the local network interface device of the base module (Fig. 1, paragraph 0042 lines 1-2: power supply module; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules; paragraph 0052 lines 1-3: modules A, B, C, and D turning off respective communication bus 1 pass-thru switches)

**For claim 35,** Koperda discloses

- the Ethernet switch (paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence) comprises:
- at least one first Ethernet port connected to a respective local network connector through a respective first local network communication bus (paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence; paragraph 0049 lines 1-4: communication bus 3 carrying residential data; the Ethernet module implicitly have respective ports);
- a second Ethernet port connected through a second local network communication bus to the input expansion connector, for the connection to the local network communication bus of the expansion bus (paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when

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stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules; paragraph 0049 lines 1-4: communication bus 3 carrying residential data; the Ethernet module implicitly have respective ports); and

- a third Ethernet port connected through a third local network communication bus to the output expansion connector (paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0049 lines 1-4: communication bus 3 carrying residential data; the Ethernet module implicitly have respective ports)

**For claim 36,** Koperda discloses

- the Ethernet switch (paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence) includes at least one optical port connected through a respective optical communication bus to an optical transceiver of the expansion module (Fig. 1; table 1, paragraph 0043 lines 1-9: power supply module combined with Ethernet module and FDDI interface; paragraph 0049 lines 1-4: communications bus 2 used to carry data to the external network access going to a public network; optical transceiver implicitly exist used for FDDI communications)

Koperda does not explicitly disclose optical Ethernet. However, Koperda discloses FDDI interface (table 1) and power supply module combined with Ethernet



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module and FDDI interface (paragraph 0043 lines 1-9). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to implement optical Ethernet instead of FDDI to increase flexibility in optical communication systems.

**For claim 37**, Koperda discloses

- the at least one expansion module comprises a wireless local area network expansion module (Fig. 2)

**For claim 38**, Koperda discloses

- the at least one expansion module comprises a power line transmission expansion module which allows communication (paragraph 0042 lines 1-2: power supply providing the power for the stack of modules; paragraph 0047 lines 1-3: power bus)

Koperda does not explicitly disclose AC power line. However, Koperda discloses power supply providing the power for the stack of modules (paragraph 0042 lines 1-2) and power bus (paragraph 0047 lines 1-3). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to allow communication over AC power line to supply power to modules.

**For claim 39**, Koperda discloses

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- the base module comprises a power supply supplying the data processing unit and the local network interface device, and in which the expansion bus comprises power supply distribution lines, the at least one expansion module comprising at least one respective second power supply regulator (paragraph 0030 lines 8-11: additional power supply modules are added as required by the customer; paragraph 0042 lines 1-2: power supply providing the power for the stack of modules; paragraph 0043 lines 1-9: power supply module combined with Ethernet module and wireless module; paragraph 0047 lines 1-3: power bus)

Koperda does not explicitly disclose power supply input for receiving unregulated power and at least one power supply regulator for generating regulated power supply from the unregulated power supply. However, Koperda discloses power supply providing the power for the stack of modules (paragraph 0042 lines 1-2) and power bus (paragraph 0047 lines 1-3). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to use power supply to generate regulated power supply from unregulated power supply in order to provide power to other modules.

**For claim 40,** Koperda discloses a method comprising:

- a broad-band data communication device for handling communications with the external data communication network through a broad-band data communication channel (table 1: ADSL interface; paragraph 0043 lines 1-9: power supply module combined with Ethernet module and ADSL interface);

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- at least one local network port for the connection to a local data communication network (paragraph 0032 lines 10-11: IP phone connected to an Ethernet network; paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence; the Ethernet module implicitly have the ports paragraph 0043 lines 1-9: power supply module combined with Ethernet module);
- a local network interface device adapted to handle communications with the local data communication network and coupled to the local network port, the local network interface device (paragraph 0032 lines 10-11: IP phone connected to an Ethernet network; paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence; the Ethernet module implicitly have the ports; paragraph 0049 lines 1-4: communications bus 2 used to carry data to the external network access going to a public network, communication bus 3 carrying residential data); and
- coupling to a base module of modular apparatus (Fig. 1; paragraph 0042 lines 1-2: power supply module) at least one expansion module (paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence) including at least one expansion local network port for connection to the local data communication network, and an expansion local network interface device (Fig. 1; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0049 lines 1-4: communication bus 3 carrying residential data; paragraph 0037 lines 1-5:

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signaling go from the ADSL modem to the system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone; network ports implicitly exists in Ethernet module);

- disabling the local network interface device of the base module (Fig. 1; paragraph 0042 lines 1-2: power supply module; paragraph 0052 lines 1-3: modules A, B, C, and D turning off respective communication bus 1 pass-thru switches), the local network interface device for handling communications with the local data communication network and being coupled to at least one local network port of the base module (paragraph 0032 lines 10-11: IP phone connected to an Ethernet network; paragraph 0042 lines 6-7: Ethernet module allowing distribution of data to local device in the residence; the Ethernet module implicitly have the ports; paragraph 0049 lines 1-4: communications bus 2 used to carry data to the external network access going to a public network, communication bus 3 carrying residential data);
- controlling the expansion local network interface device by means of the data processing unit (paragraph 0014 lines 4-7: using the processing element to identifying at least one communication bus that will be used by the first module to communicate a message to at least one second module; paragraph 0066 line 1: system processor) of the base module through the interface of the expansion local network interface device (Fig. 1; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller

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to communicate supervisor message with all the modules and transferring data directly between modules); and

- coupling the at least one local network port of the base module to the expansion local network interface device (Fig. 1; paragraph 0043 lines 1-9: power supply module combined with Ethernet module; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together ; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules)

Koperda discloses all the subject matter of the claimed invention with the exception for media independent interface. Rabenko discloses media independent interface (paragraph 0061 lines 1-5: MII). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to incorporate the media independent interface to the system of Koperda. The motivation would have been to the use any of types of PHY devices without redesigning or replacing the MAC hardware.

**For claim 41,** Koperda discloses

- an expansion local network interface device adapted to handle communications with the local data communication network, the expansion local network interface device having an expansion interface (fig. 1: paragraph 0037 lines 1-5: signaling go from the ADSL modem to the system processor which may then signal to the

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cordless phone module to initiate a ring at the cordless VoIP phone; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together ; paragraph 0049 lines 1-4: communication bus 3 carrying residential data);

- an expansion interface bus connected to the expansion interface (Fig. 1; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules);
- an expansion local network communication bus connected to the expansion local network interface device (Fig. 1; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules); and
- an expansion bus connection scheme for the connection of the expansion module to the expansion bus, the expansion bus connection scheme permitting (Fig. 1; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules):

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- connecting the expansion interface bus to the interface bus of the expansion bus (Fig. 1; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules);
- connecting the expansion local network communication bus to the local network communication bus of the expansion bus (Fig. 1; paragraph 0044 lines 3-7: modules communicating with each other using connectors mated when stacked together; paragraph 0048 lines 1-4: communications bus 1 used by the system controller to communicate supervisor message with all the modules and transferring data directly between modules; paragraph 0049 lines 1-4: communication bus 3 carrying residential data)

Koperda does not explicitly disclose driving the disable signal line of the expansion bus to a state corresponding to a disabled state of the local network interface device. However, Koperda discloses modules A, B, C, and D turning off respective communication bus 1 pass-thru switches (paragraph 0052 lines 1-3). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of invention was made to disable the interface of module by turning off the respective communication bus 1 pass-thru switches in order to control modular gateway efficiently.

Koperda discloses all the subject matter of the claimed invention with the exception for media independent interface. Rabenko discloses media independent interface (paragraph 0061 lines 1-5: MII). Therefore, it would have been obvious to the

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person of ordinary skill in the art at the time of invention was made to incorporate the media independent interface to the system of Koperda. The motivation would have been to the use any of types of PHY devices without redesigning or replacing the MAC hardware.

**For claim 42**, Koperda discloses

- a local communication network allowing user appliances to interconnect, comprising a modular expandable apparatus according to claim 22 (Fig. 1; paragraph 0037 lines 1-5: signaling go from the ADSL modem to the system processor which may then signal to the cordless phone module to initiate a ring at the cordless VoIP phone)

### ***Conclusion***

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jae Y. Lee whose telephone number is (571) 270-3936. The examiner can normally be reached on Monday through Friday from 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Ryman can be reached on (571) 272-3152. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jae Y Lee/  
Examiner, Art Unit 2466

/Daniel J. Ryman/  
Supervisory Patent Examiner, Art  
Unit 2466